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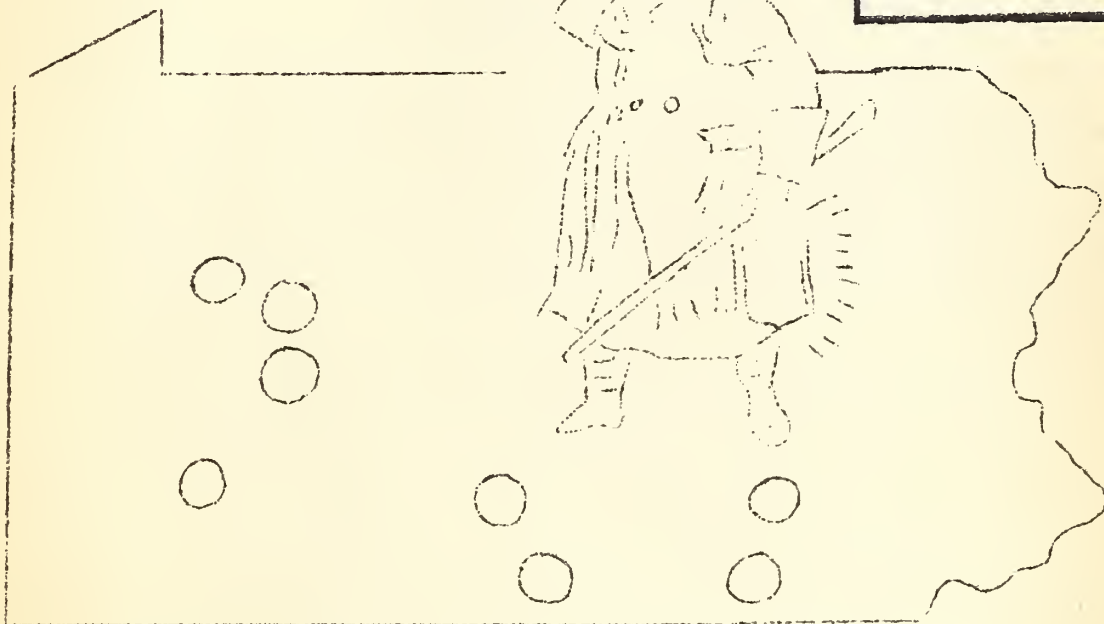
# THE CRIER

SOIL CONSERVATION  
IN  
THE KEYSTONE STATE

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DECEMBER  
1935

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WILLIAMSPORT, PENNSYLVANIA

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# THE CRIER

Formerly the "Crooked Creek Crier"  
Published monthly at Williamsport, Pennsylvania by the  
SOIL CONSERVATION SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE

Austin L. Patrick, Acting State Coordinator

Editor - Sidney P. Armsby

Contributors - Soil Conservation Service

Volume 2

December, 1935 -- January, 1936

No. 1

## A MESSAGE FROM DR. PATRICK

The activities of the Soil Conservation Service have grown steadily since the work was started. This growth is due to the fact that more and more land operators in the United States have come to realize the necessity of learning more concerning soil conservation practices. Today several hundred ECW Camps are working on this problem and there are approximately one hundred and forty approved watershed projects.

The Washington Office has deemed it wise to decentralize their activities and have divided the United States into eleven regional districts. This movement has been undertaken in order to expedite the work.

Region #1 includes the following States: West Virginia, Maryland, Delaware, New Jersey, Pennsylvania, New York and all of the New England States.

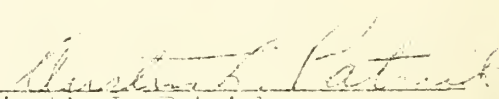
The Soil Conservation activities that are in effect in Region #1 at present consist of fourteen projects, thirteen of which are being operated, and thirty camps. Three watershed projects and eight camps are located in New York State. Pennsylvania has four projects and nine

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\* camps; New Jersey, three camps and three watershed projects;  
\* Maryland, three camps and one project. West Virginia has  
\* two watershed projects and seven camps. The fourteenth  
\* project is located in Aroostock County, Maine, and will be  
\* started as soon as the snow melts.  
\*

\* The town which is more nearly in the center of the  
\* established projects is Williamsport, Pennsylvania. Offices  
\* are being set up there at present. A building at 404 W.  
\* Fourth Street has been leased until a definite location  
\* can be secured. It is hoped that with the establishment  
\* of this Regional Office the work of the entire district  
\* will proceed even more smoothly and more efficiently than  
\* in the past. Certainly the project staffs will have an  
\* easily available source of help in solving some of their  
\* administrative and technical problems, thereby being en-  
\* abled to carry their projects forward more effectively.  
\*

  
Austin L. Patrick  
Regional Conservator - Region #1

"A NEW DRESS"  
and  
A NEW YEAR'S GREETING

With this issue, the old CROOKED CREEK CRIER becomes, more simply THE CRIER. Started originally as a monthly summary of progress in the Crooked Creek Area, THE CRIER has grown side by side with the increase in the number of projects in Pennsylvania, so that its pages now record news items from 8 Demonstration Areas in various sections of the state.

We believe that the CROOKED CREEK CRIER has served adequately and well as a record of early accomplishments in Pennsylvania. Its friends have been most kind, and their cooperation has brought about a clearer understanding of the work being done by the Soil Conservation Service in this state. We bespeak a continuance of their good will and we hope that the new CRIER in its new dress will continue to please them, and that it will live up to the requirements for which it has been created.

In conjunction with its change in name, and its new office address, THE CRIER is enlarging its scope of service to more fully report the augmented activities of the Soil Conservation Service in the Keystone State.

We wish health, happiness and prosperity to all who may read THE CRIER during 1936. And, when the new year again becomes an old year, we hope to be able to say....."The work of the Soil Conservation Service has helped to bring real and lasting benefits to Pennsylvania farmers."

THE CRIER wishes you all:

A H A P P Y N E W Y E A R

MR. BENNETT REPORTS  
or  
SOIL CONSERVATION ACTIVITIES IN 1935

Summarizing the progress of the erosion control program of the Soil Conservation Service during the past year, H. H. Bennett, Chief of the Service, announced that a major expansion of operations had been accomplished.

"On January 1, 1935 there were 32 erosion control demonstration areas," he stated, "and 51 CCC camps doing erosion control work throughout the country. Today there are 139 demonstration areas and 501 CCC camps."

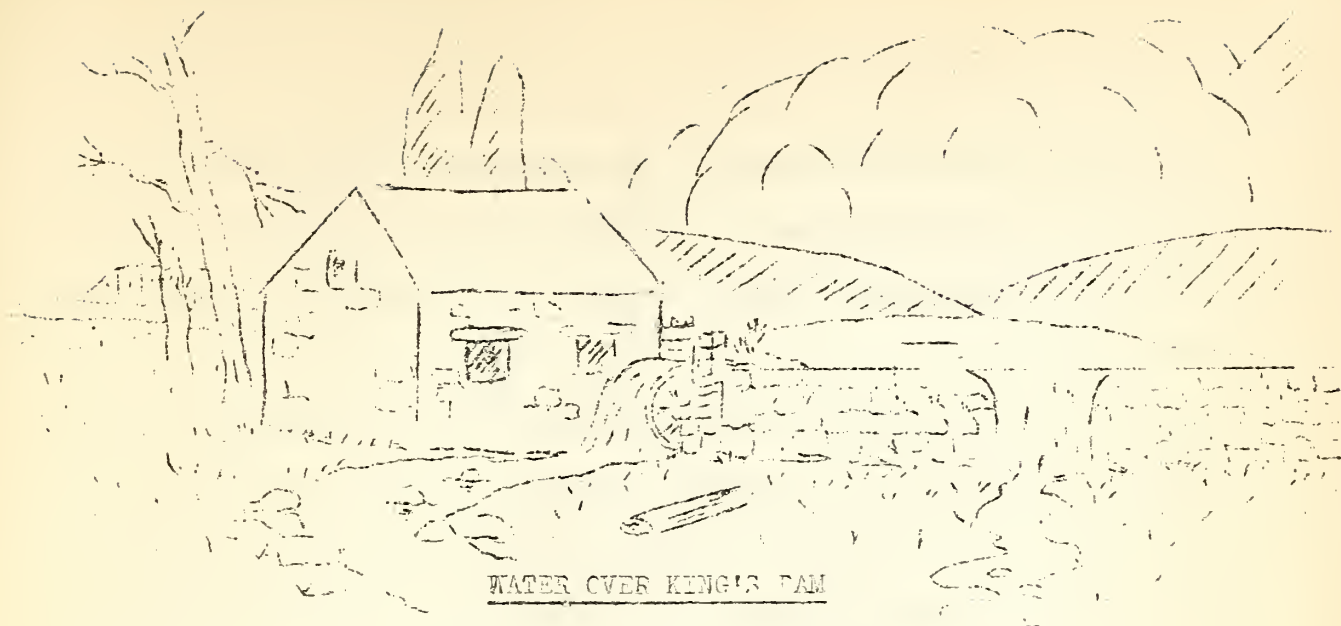
"A year ago the areas within which field operations were under way covered approximately 28,000,000 acres in 31 states. Today the combined areas comprise more than 51,500,000 acres of land in 41 states."

"Within 42 of the demonstration areas", Mr. Bennett said, "Thousands of individual farmers have signed cooperative contracts, whereby they voluntarily agree to carry out for a five year period, the soil conservation measures recommended by experts as best adapted to the needs of their land."

Mr. Bennett declared that additional thousands of contracts, covering farms in the 27 new demonstration areas which were started in the final months of 1935, are not yet completed because of the limited period of operation.

"More than a quarter of a million farmers and other interested persons inspected erosion control work in the demonstration areas during the past two years," Mr. Bennett stated. "If each of these persons represented only 50 acres of land needing protection from erosion, the demonstrations of the Service might logically be said to have extended some measure of influence to more than 12,500,000 acres outside of the demonstration areas."





### WATER OVER KING'S DAM

#### A TRUE LIFE STORY OF EROSION

There is a nice little gray-haired old lady living in Lancaster County who can tell you something about soil erosion, and what it can do during the course of a lifetime. Her home is on the West Branch of the Octoraro Creek, near King's Bridge. Nearby stands King's Mill -- an old-time grist mill, built more than a century ago, and in practically continuous operation, serving Lancaster County farmers, till just a few years ago. The old log-and-masonry dam which spans the little creek, and which used to check the rushing waters in the rainy seasons, is a familiar landmark to all the residents in the neighborhood. They call the old structure King's Dam.

During the Summer of 1934, heavy rains washed out old King's Dam and incidentally gave an interesting, if somewhat costly, object lesson in soil erosion.

On viewing the damage, Engineers of the Lancaster County Project of the Soil Conservation Service discovered that the water pouring through the crack in the dam, had gouged a deep V-shaped channel into a deposit of silt eleven feet deep -- piled up to the very brink of the old spill-way. Examination of this cut disclosed the fact that the richest soil lay at

the bottom, while that towards the top was poorer and more sandy. Such a condition is a sad reminder of the fact that even the rains in Lancaster County can no longer find quite so rich a soil to wash as was formerly the case.

Calculations by the Soil Conservation Service showed that this one small dam had backed up approximately 27,000 tons of rich top soil, not to mention the considerable quantity of silt which undoubtedly had been washed over the top of the dam, and carried through the mill-race to flow over the old wooden mill-wheel. From the cut alone, some 7,250 tons of soil were flushed out when the dam gave way. The total watershed area contributing to this accumulation is about 1200 acres, of which approximately 75% is cultivated farm land.

But this is only part of the story. The little gray-haired old lady who lives nearby says that, many times before, the waters of the Octoraro have broken down old King's dam. Each time the unloosed flood has torn the embanked silt from the breast of the dam, to deposit it somewhere else further down the stream.

According to the little gray-haired old lady, it generally requires from one to two years after the dam has been repaired, before the hard-working Octoraro can again accumulate enough silt to fill up the channel caused by the break. Thus, the deposits washed from the cut indicate a loss of about five tons of soil per cultivated acre per year, from the farms located above the dam.

From this it is easily calculated that during the lifetime of this little lady -- she is over eighty now -- approximately 400 tons per acre, or about one-half of the total topsoil, has been lost from the

cultivated land within the boundaries of this one small watershed.

The old mill-wheel, if it could speak, might tell many an interesting tale of the "good old days." And the little old lady, when she was a little girl, knew those same good old days. Both of them watched and listened, year after year, as thrifty, hard-working farmers drove their Conestoga wagons, piled high with golden grain, to the old mill. Both of them heard those farmers discuss the problems of their times while they waited for their grain to be ground between the ponderous old mill-stones. And perhaps the old mill-wheel (if it could think) may have felt a little sad as it turned on and on, grinding the grain, because it was driven by the water that was robbing those farmers of the very soil in which that grain had flourished.

Much water has flowed over many dams, in all sections of the United States, since the day King's Mill was built, and there are many streams that have carried heavier burdens of silt than the Octoraro -- chuckling and boasting as they rushed over other old mill-wheels with their booty of priceless top-soil, stolen from countless thousands of farms throughout the land.

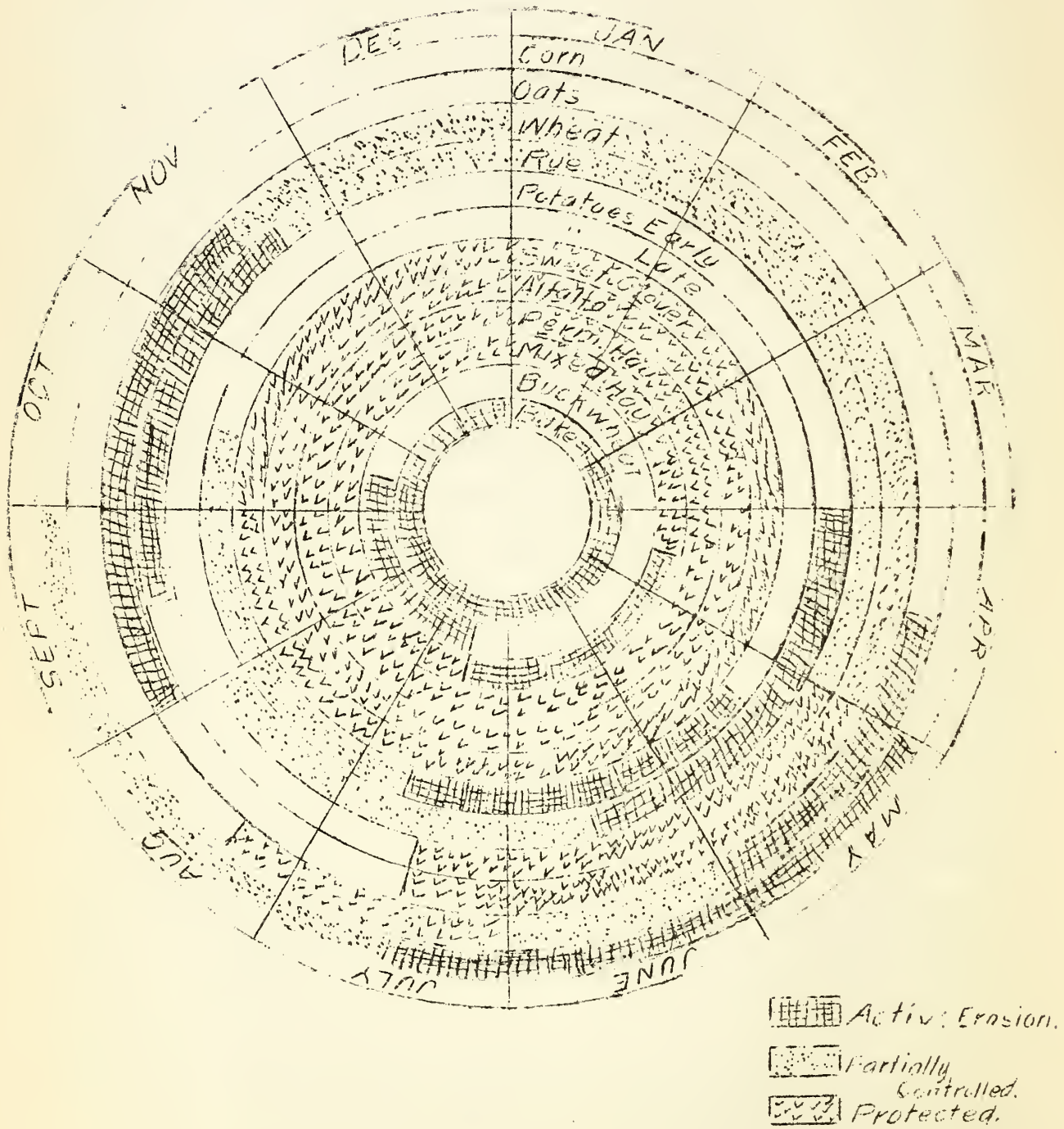
Is it any wonder that serious-thinking farmers, the country over, scratch their heads as they stand on their eroding land and wonder why crops are not quite so good as in their boyhood? To their fathers the soil was something solid and dependable. No depression or disaster could steal it away; no laws of man could alter its trustworthiness. Now their sons wonder, and are not so sure .....

They could learn the story from a nice little gray-haired old lady who has lived beside the Octoraro for a long, long time.

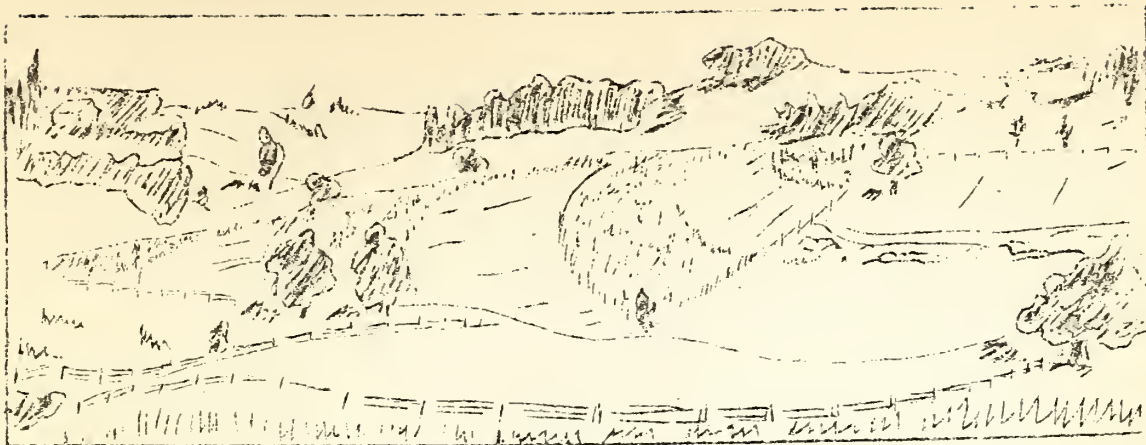
# A GUIDE TO STRIP CROPPING

W B. Oliver & Wm. S. Wetzel.

Adapted from work of M. W. Lowry







## A GUIDE TO STRIP CROPPING

By

W. B. Oliver and Wm. S. Wetzel

The chart shown on the opposite page graphically illustrates the degree of erosion control afforded by various crops commonly used for strip cropping in southwestern Pennsylvania. It is intended primarily to show, month by month, which crops are effective and which are not effective in protecting the land from surface erosion.

The idea of showing the effect of strip cropping by a chart was advanced and worked out by M. W. Lowry, Chief Soil Expert at Spartansburg, South Carolina. The accompanying chart was adapted from his work to fit the crops commonly grown in the vicinity of the Crooked Creek Watershed. The planting and harvesting dates are average dates for this region and the effectiveness of each crop in the control of erosion is based on normal growth and thickness of stand.

The SEEDING and PLANTING portions in each circle indicate varying degrees of protection, while the EROSION portion shows the time when the land is exposed and subjected to washing.

The date which marks the beginning of active erosion usually precedes the date of seeding by a week or ten days because the land is usually fitted that length of time before seeding.

The unshaded portion of each circle indicates the period of the year when the lands would be without cover if that particular crop were grown continuously year after year.

Thus in the case of corn, the land is usually plowed in April and partially fitted by May 1st, after which time it is exposed to erosion till the middle of July, when the corn is large enough to give partial protection until the crop is harvested, about September 30th. From then until the land is plowed for the following crop, it will be subject to active erosion.

In the case of oats, erosion is active from April 15th to June 15th. The land is then protected until August 15th, when the oats are harvested. When mixed hay is sown with oats the clover and timothy, which become effective by the middle of July, will protect the land until it is again plowed for some other crop.

By studying this chart month by month, the crops which furnish protection for any given period of the year can easily be selected.

\* \* \* \* \*

The auctioneer cries, "Going.....going.....gone." Soil erosion is an auctioneer too. It has said, "Going.....going.....gone!" on 50,000,000 acres in this country. It is saying, "Going.....going....." on an additional 125,000,000 acres. It is saying "Going....." on still another 100,000,000 acres.

Destruction is the only bidder.

F.C.W.'S CONTRIBUTION TO CONSERVATION WORK DURING 1935

The Enrollee Personnel in all nine CCC Camps attached to the Soil Conservation Service in Pennsylvania is now steadily working on various control projects in the different areas and on the different farms. The following table shows the kind and amount of work that has been accomplished up to January 1st., 1936:

<u>Type of Project</u>	<u>Unit</u>	<u>Work Completed to Date</u>
Cribbing	Cu. yds.	499
Fence	Rods	19,586
Reservoirs	Number	5
Stream & Lake Bank Protection	Sq.yds. (principally stone work)	1631
Gully Bank Sloping	Sq.yds.	15,627
Permanent Check Dams	Number	50
Temporary Check Dams	Number	336
Gully Tree Planting	Sq.yds.	5090 (Locust)
Gully Seeding & Sodding	Sq.yds.	5615
Diversion Ditches	Lin.Ft.	52,544
Miscellaneous Erosion Control (Fence Row Cleaning)	Man Days	4657
Excavating Canals, Channels & Ditches	Cu.yds.	1705
Rip-Rap	Sq. yds.	736
Pipe Lines	Lin.Ft. (Camp water lines, etc.)	2085
Field Planting Trees	Acres	739
Nurseries	Man Days	4851
Tree Seed Collections	Bu. of Cones	84

<u>Type of Project</u>	<u>Unit</u>	<u>Work Completed to Date</u>
Tree Seed Collections Hardwoods	Lbs. of Cones	24,082
Preparation & Transportation of Materials	Man Days	2,160
Topographic Surveys	Acres	12,703
Topographic Maps	Man Days	373

The matter of safety to enrollees is one of the most important features in the program of the Camps. Each camp has a safety committee to initiate and execute all safety measures. Young boys as a rule are not "Safety-Minded", and it is only by constant education and inspection that we can train the enrollees to use proper judgment in the performance of their duty, so as to minimize the possibility of personal injuries.

In October there occurred only four loss-of-time accidents with 762 men working, in November there were only two loss-of-time accidents with 1114 men working, in December only two loss-of-time accidents with 1389 men working. This is a very creditable showing.

Camp 303-Pa-6 at Shelocta, Pa., was selected by Washington to be demobilized in accordance with the general reduction program of the CCC Camps throughout the United States. We are pleased to announce, however, that this order has recently been countermanded, and that the entire camp is now to remain with us indefinitely.

January 1, 1936

(Signed) R. S. SNYDER  
State Administrator



MR. WARNER COMMENTS ON S.C.S. WORK IN INDIANA COUNTY

The Soil Conservation demonstration in the Crooked Creek watershed in Indiana County is the most extensive of any of the demonstrations in Pennsylvania.

Apparently there is much misunderstanding about this demonstration. Some are inclined to think of it as a particular service to the individual farmer. Although the individual farmer may materially benefit by work done on his farm and a revised plan and rotation, the farm itself is only a part of a larger demonstration. Many people have been ready to pass judgment on the Soil Conservation program without having many facts or information on the subject.

There has been in the past, and still exists, a great wastage of soil as the result of unwise farming practices. It is highly desirable that the public's attention be definitely focused on this wastage and corrective measures pointed out through demonstrations.

Although the Soil Conservation program may call for considerable changes on certain farms, I believe these changes will cause very little difficulty and should gradually improve the value and productiveness of the farm. Strip and contour farming has been practiced by many of the best farmers in the county. Pasture improvement is one of the most economical methods of providing summer roughage at low cost. The growing of higher quality hays is always a matter of good business. The planting of the steeper slopes to forest trees where the investment in lime and fertilizer for pasture improvement is not justified, is approved by almost everyone.

(Continued on next page)

It will certainly be interesting over the next five or ten years to note the changes and development of those farms which have cooperated with the Soil Conservation Service.

(Signed) JOHN N. WARNER  
County Agent

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QUALITY OF LAND A CREDIT INDEX\*

Credit is sound when based on normal land values determined by earning power. It can well be made contingent on the top six to eight inches of soil being adequately protected from erosion. These represent the farmer's productive capital. Excess credit on poor land tends to prolong the use of that which is submarginal. A sound land policy and a sound credit policy are good team mates.

\*  
(From "Protecting Investment Values in Land"  
by the Agricultural Commission of the  
American Bankers Association.)

CONTACT DEPARTMENT REPORTS  
ON  
PROGRESS MADE IN 1935.

A summary of the Contact Department reports from the Crooked Creek, West Franch Octoraro, Little Antietam and Beaver Run Watersheds shows that a total of 197 cooperative agreements have been completed in Pennsylvania, from the beginning of activities last year until the first of the present year. Following are some other pertinent totals contained in the reports:-

Number of acres under agreement.....	20,584
Acres of crop land agreed to be retired to trees.....	1,456
Acres of crop land agreed to be retired to permanent hay and pasture.....	2,093
Total acres actually retired from cultivation to date.....	1,139
Acres agreed to be strip cropped..... (Not strip cropped formerly)	6,790
Decrease in number of acres of clean tilled crops.....	372
Increase in number of acres of erosion resisting crops.....	1,659

Summaries from the work areas in York, Clarion, Huntingdon and Jefferson Counties have not yet been compiled to the first of the year. Data from these areas will be given in a later issue.

\*\*\* \* \* \* \*

Mother Nature is an "Indian giver;" she made the land and gave it to us, but if we don't treat it right..... she'll take it back.

"BUSINESS AS USUAL"

BLIZZARDS NO BAR TO CONSERVATION WORK IN PENNSYLVANIA

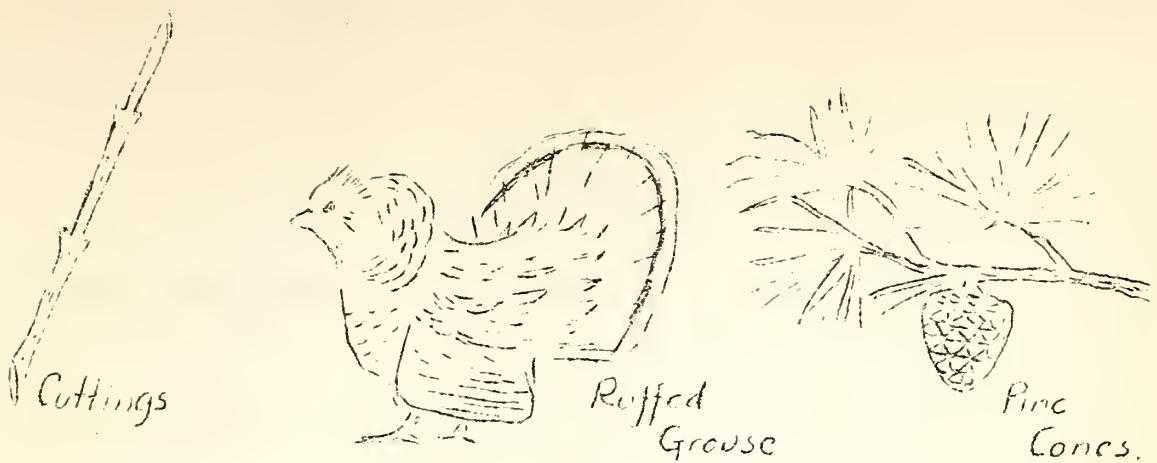
During Christmas week's extremely cold spell, CCC boys and practically all field men were out, sledging out limestone; cutting fence posts; staking out contour lines; making preliminary farm surveys, and generally doing all the work the snow would permit. Cooperators on whose farms they were working expressed surprise. One said, "I'm toast-in' my shins by the fire today; wouldn't poke my nose out on a bet." Another remarked, "It's even cold workin' in the barn and as far as me goin' outside.....!"

It was so cold in fact that all the boys had to work harder than usual to keep the circulation going. "They sure are hoppin' around fast," commented a cooperator.

In the Jefferson County area, Dr. Diener reports that the Sprinkle Mills camp suffered from an entire lack of ordinary means of communication during the Christmas week snows. The community roads were entirely blocked by snow and ice, and the telephone line had not then been completed into the camp. Dr. Diener went on to say that considerable work was accomplished in spite of these difficulties, especially post-cutting. Some of the Contact Men even went cross-country entirely on foot, in order to discuss pending agreements with prospective Cooperators.

\* \* \* \* \*

Soil in the creek grows no corn.



PROPAGATION OF CUTTINGS: WILD-LIFE PROTECTION, AND SEED COLLECTION

ACTIVITIES INCIDENTAL TO S.C.S. REFORESTATION PROGRAM

A WPA worker was carefully cutting black-haw switches from some young growth on the side of an embankment. Curious, I asked him what was to be done with the switches.

"They'll be planted in a year or two in gullies and other places, to grow up and hold the soil fast", he said. "That's to prevent erosion," he added as I looked puzzled.

"Where do you take them?" I asked.

He stamped his feet a minute to warm them before he answered. Then he said, "They're taken down to the cellar of the seed storage warehouse in bundles of eighty to a hundred. Then, after being cut into eight or ten inch lengths, they're covered with damp peat moss so that a callous will form on the cut end of each switch."

"Then you're going to use them for planting?" I asked.

"Yes!" was the reply. "About the middle of March they'll be planted in nursery beds at Five Points Nursery so they can get roots. Then, next fall, maybe, if we're lucky, and they take hold, we'll be able to take them out in the field and plant them in woodlots; gullies, and fields that are too steep for pastures or crops. "You know," he added to explain the last, "sometimes that'll build real protection against erosion on the soil

that's still there.

"Thanks," I said. "From now on I'll be looking for black locusts." I watched him a while longer and then left.

"They'll show you a lot more of them at the storage warehouse if you want to go over," were his parting words.

Up in the files of the Forestry Department of the Soil Conservation Service in Pennsylvania, there is a complete story of the seed and cutting collection, of which the WPA worker told me a small part. This year, for instance, the collecting of cuttings, whips or switches will be carried on in other areas over the state, as well as in the Crooked Creek Project.

Another activity told by the records in these files is the construction of twenty-five wild-life feeding shelters that have already been erected under the supervision of the Wild-Life Division of the Forestry Department. They are being used purely for demonstration purposes. Their purpose is to show the value of wild-life protection, especially in winter. It is believed that their establishment and use will demonstrate the very small amount of work necessary to attract and maintain various species of birds whose activities, in devouring insects and weed seeds, are highly beneficial during the growing season.

During the past year, the Forestry Department has also done some very comprehensive work in seed collection. That work has just been summarized so that the totals are now available.

Over the entire state a total of 294,876 pounds of cleaned and uncleaned seed has been collected. This includes the figures from nine different project areas and represents seeds of eighty-five different species.



Jefferson, Franklin, Clarion, York, Lancaster, Huntingdon, Somerset and Indiana County areas, as well as the Penn State Station, are the projects reporting. Indiana leads in the totals with 78,058 pounds. Franklin runs a close second with 73,110, and Huntingdon is third with 51,453 pounds.

Black Locust leads the list of species with a total of 87,942 pounds of seed collected, more than the total of any other two species combined. Next comes black walnut with 42,035 pounds. White tulip poplar and pitch pine are in a close race for third with the former having a total of 32,582 pounds and the latter 31,575.

A majority of these seeds will be sent to the Lancaster and Indiana County nurseries for planting. Later, the seedlings will be shipped to various points in Region #1, as they are needed for conservation work.

Complete figures on seed planting, seeds shipped, and seeds on hand, are not yet available for the entire year period.

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"IN WINTER" \*

A good winter coat covers the portion of man's body needing most protection. A good winter coat for the land should cover the parts of the farm needing most protection.

\*SANDY CREEK NEWS.

## FARM SURVEY SHOWS LIVESTOCK PROFITABLE

By David H. Walter

Increased investment in livestock on western Pennsylvania farms has been accompanied by increased farm incomes, improved soil fertility, and larger crop yields.

A summary of the Farm Management Survey taken in the spring of 1935, on 344 full-time farms in the Crooked Creek watershed, Indiana County, indicates a close relationship between livestock investment per acre, crop yields, and returns from the farm. The farms were grouped according to the investment in livestock per acre, as shown in the table below.

Livestock Investment per acre in farm	Index of crop yields	Labor Income Dollars
\$4.00 or less	88	-192
\$4.01 to \$6.00	92	-203
\$6.01 to \$12.00	103	-114
\$ 12.01 to \$16.00	115	165
Over \$16.00	119	361

The farms having \$4.00 or less invested in livestock per acre had crop yields 12% below the average and an average labor income deficit of \$192.00. In contrast to these figures, the farms having an investment in livestock of over \$16.00 per acre had crop yields 19% above the average and a labor income of \$361.00. Crop yields and labor income both have a tendency to increase as the investment in livestock increases. There is a difference of \$553.00 in the labor incomes of the two extreme groups of farms.



Labor income is what a farmer has left at the end of the year for his work after paying all expenses, including depreciation and 5% interest on his investment. In addition he has a place to live and products from the farm for his use. If a farmer has a minus labor income it means that he has failed by that much to pay all expenses and make 5% interest on his investment.

The trend of farming in this section of Pennsylvania has been away from crop production for sale, and towards the production of livestock and livestock products. In Indiana County, with a 22% decrease in the number of farms for the census period 1920 to 1930, there was an increase of 23% in the volume of milk produced and a 17% increase in egg production. As a general rule, types of farming shift with changing economic conditions but usually these shifts are not made rapidly enough for the best interests of the farmer. It seems as if more farms could profitably increase the size of their dairy herd and poultry flock.

\* \* \* \* \*

Soil conservation is farm insurance for the farmer  
and life insurance for the Nation.

\* \* \* \* \*

A gully eats expensive food --

And it has a mighty big appetite.

\* \* \* \* \*





U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

Williamsport, Pennsylvania

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FOR THE LAND'S SAKE ! -- SOIL CONSERVATION